MEETING SUMMARY
STEERING COMMITTEE
ETV SMALL SYSTEMS PILOT
ARLINGTON, VIRGINIA
MAY 2, 1996

I. EPA Environment Technology Verification Program (Penny Hansen, EPA)

The goal of the verification program is to provide credible environmental technology performance data from impartial third parties under the auspices of EPA. To that end, we must include an ETV customers, which include users, purchasers, technology enablers, regulators, consulting engineers and technology developers and vendors. The goal of the program is to evaluate and verify equipment using a technology, not to *certify* equipment.

Five ETV Program Pilots are: 1) Small Systems (NSF *International) 2)* Pollution Prevention *(P2)* and Waste Treatment Technology (CSI Industries-California EPA); 3) Consortium for Site Characterization Technology (Sandia National Laboratories); 4) Indoor Air Products (University of Illinois and Research Triangle Institute); 5) Unspecified-Open Solicitation.

Credibility, accountability, clarification, speed and efficiency are ETV program values for which to strive. The key values are credibility and efficiency in attaining a self supporting program that is affordable to both small and large businesses. The ETV year *2000* vision includes more participants and approximately twenty to twenty-five third party verification organizations, protocols and operating procedures defined, with funding partially derived from EPA.

For the Small Package Drinking Water System Pilot (1.5 million), the standardized testing protocols will be established first. Verification win begin late 1996. The likely focus will be on systems addressing microbials, particulates and disinfection by products.

Currently, we are in the "organizational phase" of the process. EPA has chosen NSF as the third party representative. Together they have assembled a steering committee to guide the process of developing generic protocols, review reports, and address communication strategies. It is in the "operational phase" that generic or tailored test plans are developed, testing by the verification organization or testing developer is performed, quality assurance is evaluated, report is verified and information is diffused.

II. An overview of ETV and the Small Systems Pilot (Bruce Bartley, NSF International)

The objective is to organize and develop a pilot program. The expectation is to achieve a self sustaining program. The program key activities are to develop study protocols, and test plans.

A. The Steering Committee's Goals and Responsibilities

To provide advice and assistance to NSF and the EPA on the verification testing program. The focus is on public health. The steering committee win recommend protocols, define scope, review and revise reports and approve protocols. Beyond these responsibilities, the committee will address strategic issues and solve problems as they arise.

B. A Discussion on the Intent of the Verification

David Spath, representing the States, stressed the intent of the verification and the need for its acceptance across state boundaries. 'where is no benefit if we cannot carry the data from state to state".

Ken Schmidt Industry) felt that to obtain a consensus from an states is virtually impossible. '~There is no guarantee that an fifty states will agree".

Bruce Bartley suggested that information, i.e., protocols and test reports can be provided to ASDWA who would distribute the information to the states.

Bridget O'Grady of ASDWA acknowledged the possibility of distributing information to the states, but feels that it should not be locked into a set of criteria; there are too many variables to achieve a uniform level of comfort.

Bridget O'Grady argued that States need to find the verification reasonable. The verification should not been viewed as a guarantee, but as a tool to smooth the way of approving package plants. Its not likely to have 100% agreement.

Bob McCarthy Industry) gave his opinion that it is good to develop criteria to ease requirements by the State. To that end, we need to develop standardized testings.

Ken Schmidt (Industry) agreed that the states deserve an opportunity to comment on protocols as they develop and approve the consensus product.

Gary Logdson an engineer believes that the commitment by the States is dependent on technology. Nobody can predict in advance what kind of technology will be available.

Dan Muchin Industry) clarified that the customer is the "State". EPA may fund the program and NSF verifies it, but the federal government customers and industry's customers are the States. The program needs to put pressure on State that there are other ways of doing things in place of the current approval process.

Thomas Goulet (Industry) voiced concern over the cost of the pilot program and its impact on small business. The cost of the pilot is often greater than the plant. The

objective is to minimize the cos ts of providing quality drinking water for small towns. Overall, the data must be usable.

Joe Jacangelo an engineer agreed that we need input from the State on development of the various protocols.

Penny Hansen (EPA) observed that many S tates tend to "hang back" until the process improves before coming "on board".

Jerry Bibersdne (State) agreed that we should make the states aware and an updat e kept on the program. Use of existing data will help industry to determine Stat e requirements.

NSF is responsible for getting the word out, to commu nicate to States. NSF personnel routinely attend meetings to present status reports and updates. NSF will also work with ASDWA.

John Sadzewicz (State) voiced his concern over the cost. Small systems have limited resources and cannot afford to spend money on a pilot that does not work. There is no pool of money to replace what has spent.

Ken Schmidt (Industry) responded that the supplier i s expected to provide a guarantee in most situations.

III. Test Protocol Development (Bruce Bartley)

*Note: Please edit the word "test" before protocol. It should read "study protocol" in the meetin g packet.

A. Test Protocol Development

Step (1): Research and write draft test protocol (Straw man)
Step (2): Protocol panel reviews and recommends draft test protocol
Step (3): Draft test protocol is revised and the final report is sent to the Steering Committee.
Step (4): Steering Committee reviews the final draft test protocol and works t o approve it.
Step (5): Final test protocol is distributed.

*Note: Minority comments are welcomed at any point prior to the finalization of the draft.

B. Discussion of when the draft document should be sent to the State for review.

-Both the State and Industry initially agreed that NSF should send the draft tes t protocol to the State for comments between steps 3 and 4 and getting key

states with the proper expertise involved in the development of the protocol (Step 2). However, since maintaining the program's credibili ty is critical, the committee agreed that all the States should be allowed to review it after the Steering Committee' s review; between Steps 4 and 5. Efforts will be made to work with both ASDWA and States to get nominees to sit on the protocol pan el in Step 2. A final draft, previously viewed by the steering committee, will be sent to ASDWA to circulate to members for comments. Comments will be forwarded to the steering committee within a reasonable time frame. The State has requested the need for 10 days to 2 weeks for review of documents

The Steering Committee agreed to the following change in the process an d recommends that NSF proceed with it:

Steering Committee (foal draft report)~ASDWA~State Member s (comments)~Steering Committee.

IV. Criteria for Prioritizing Protocols from Drinking Water Compliance and Current Trends in Regulations.

A. Federal Drinking Water Regulations by Peter Shanaghan, EPA (over heads attached).

Several important regulations from 1986 -1993 include: 1) Surface Water Treatment Rule, 2) Total Col iform Rule, 3) Lead and Copper Rule, and 4) Chemicals Rule. The total compliance picture for fiscal year 1994 suggests that mos t noncompliance involve monitoring and recording violat ions. Monitoring and recording violations depend on the system. Smaller systems are twice as v ulnerable to monitoring and recording violations as large systems. Maximum contaminant violation, which is dependent on source water qua lity, is consistent throughout the size range of systems at 8.0%. Most M.C.L. violations are microbiological.

In terms of treatment needs, the most extensive need is microbiological control , (filtration/separation and disinfection) and disinfection by product control (precursor removal). The less extensive needs include nitrate and synthetic organi c chemicals and volatile organic chemicals.

B. Criteria for Prioritizing Protocols. (Jack Sullivan, AWWA)

We must begin by defining what is the definition of a small system. What is small? If we take a system serving 50,000 people or less to be small, then we are likely to see an increase in compliance problems, complexity, microbial and acute contaminants . EPA must use all risk analysis, risk reduction on any regulations that would affect a population size of 50,000 or less.

Allen Hammer (State) argues that if the definition of a small system increase to encompass larger systems then there will be little funding left for the very small systems.

Jack Sullivan stated that EPA is required to provide technologies based on population size. EPA must use all risk analysis, risk reduction on any regulations that affect a population size of 50,000 or less.

Note: Tom Stevens informed the Steering Committee that information has been received from fifteen states. Acceptance is granted if they meet standards set by ten States. It will be judged on a case by case basis. Protocols do exist to address filtration technologies and information about what protocols are good.

General guidelines to more specific details include: duration, challenges, sampling analyses, and report requirements. Engineers will provide a protocol that will aid in the submittal of the final report to the States for approval. Information will be gathered from other States.

V. Candidate Test Protocols.

A. Rule and Health Issues (Jeff Adams, EPA)

To reaffirm the opinions of the committee, the main customer is the State, while protocols will emphasize public health first then technology.

B. By Technology (Discussion)

Gary Logdson an engineer stated that small water systems must meet all MCLs. Testing should be done to provide water quality in an *efficient* manner.

Joe Jacangelo an engineer asks, if we test by technology like separation, how will they be grouped? There is no protocol for disinfection technology or microbial inactivation technology. If one chooses a technology, will there be one test plan to test the technology, or specific test plan for each technology.

Jerry Biberstine (Industry) said that States do not consider chlorine as an innovative treatment technology. It may be more appropriate to send out protocols to States and ask what their priorities are. Priorities are different from State to State. For Colorado, the highest priority is filtration.

VI. Study Protocol Panels.

(1) Microbial Removal/Destruction

Panel members:

Allen Hammer	Donna Cirolia	Peter Shanaghan
Bob McCarthy	Ohio participant	Lance Fitzgerald
Thomas Goulet	Jim Bell (Smith & Loveless)	
Roddy Tempest	Jerry Biberstine	

(2) Microbial Inactivation (Innovative)

Panel Members:
Sanjay Saxena
Steve Clark
Jesse Rodrequez, Ideal Horizons UV Manufacturing (1-802-287-4488)

(3) Disinfection By Product Removal

Panel Members:
Allen Hammer
Lance Fitzgerald

VII. Product Performance Testing

(1) Equipment vendor(s) applies for testing according to EPA/NSF testing protocol. (2) Select field demonstration sites that would appropriately challenge the equipment. (3) Use testing organizations' quality criteria as meeting quality assurance criteria acceptable to EPA and NSF. (4) Data collection with QA/QC auditing by NSF. (5) Draft test report prepared by testing organization and revised by NSF. (6) Test report on performance of equipment issued jointly by EPA and NSF.

Donna Cirolia thought the ISO 9001 requirement would be too stringent for engineering firms to meet.

Bruce Bartley asks what qualifications should be met by consulting engineers?

Penny Hansen finely stated the need for high quality criteria that would lend to the credibility of the program. EPA's verification statement will be sought by manufacturers for commercial reasons. It is stressed that credibility is important at the beginning of the process.

Jerry Biberstine (State) is concerned over NSF's apparent monopoly over the process of qualifying engineering firms and test organizations.

Bruce Bartley voiced NSF's need to feel comfortable with whatever is the final decision. There was no clear answer at this time.

Jerry Biberstine (State) asks if there is an alternative to obtaining verifiable without going through NSF.

Peter Shanaghan stated that the QA/QC crit eria used to judge what entities are acceptable to perform testing under the program maybe defined less than ISO requirements, bu t represent a consensus for judging the suitability of the organization.

Bob McCarthy (Industry) asked if NSF will qualify organizations to be contractors. Dan Muchin (Industry) asked about the suitability of EPA or State approved laboratories i n performing the verification studies.

Jeff Adams stated that appropriately re ferenced data is acceptable in support of NSF/EPA verification.

Bruce Bartley confirmed that the suppo rting data can be used to provide assurance of test data.

Peter Shanaghan stated that these are the inc remental steps in achieving verification in this process.

Dan Muchin (Industry) voiced concern over NSF's ability to deny verification even if other data otherwise supports the claim of performance.

Penny Hansen challenged this concern by saying, if the data are bulletproof, there should not be a prob lem. EPA has verified the performance of many technologies. In the past , EPA has maintained the veracity of a verification program.

Dan Muchin (Industry) asked if NSF will make the final decision and if there will b e representation in the decision making process.

Donna Cirolia and Dan Muchin (Industry) voiced concern ab out companies that repackage verified products. If a product achieves verification by submitting pertinent information, will a separate company be able to acquire the same verification based on the fact that it is the same product? At the end,~wouldn't the original company be paying for all costs of the verification?

Bruce Bartley confirmed that they will be trea ted as ANFs (Another Name For) if they are not different from the original product. But keep in mind that every manufacturer could package a product in a different way.

Penny Hansen restated that the goal is verification and not certification of the product.

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Bruce Bartley reconfirmed from earlier discussions that States require product specific verification.

Observers' Comments

Lance Fitzgerald - $30,000 is too much to pay for verification. There needs to be an equal playing field.

Richard Tucker - If the purpose of verification is to enable the acceptance from all States, the group should attempt to come up with standards that would exceed the expectation of individual State entities within the group.

VIII. Vendors Pay for Some Testing

Bruce Bartley indicated that he was aware that the States would like to articulate their concerns about product specific verification.

John Sadzewicz (State) said that the data collected, verified, assured of quality would be produced from the testing of a product. It is a product by product analysis that is important to the States.

Bruce Bartley summarized the State's perspective on specific product testing. States need credible data. There is a need for uniformity in the testing protocol. As these protocols become standardized, there will be less and less site and product specific testing.

Dan Muchin asked to present the Industry's viewpoint: We are here to service the State. If a product is verified by "X" company, will the company that repackages it get a piggyback verification?

Bruce Bardey responded by observing that there is a provision in the EPA/NSF agreement to provide small, economically disadvantaged, and women owned companies, some funding. About 8% of the total fund is set aside for testing.

Dan Muchin said that the WQA industries have approximately 100 manufacturers of package plants. How will the verification program treat 100 manufactures? Will the program allow each to participate?

Ken Schmidt said that if it does not work will they get their money back? Disadvantaged small businesses are not equipped to take the loss.

Penny Hansen said that very small companies might not be interested in the verification program. The verification program is designed to allow companies with many plants in different states to obtain easier approval.

Bruce Bartley summarized the discussion: WQA repr esents many manufacturers. This EPA/NSF program will ensure equality, affordabilit y and efficiency.. We are aware of the need to assist small businesses and will make sure the testing is a reasonable expense. To clarify, monies allocated to disadva ntaged companies will be made as needed, but will not be a grant to WQA.

Penny Hansen noted that the cost of the verification testing depends largely on what types of protocols are developed; it depends on what is done.

Jeff Adams said that this process will be accomplished in incremental steps.

Announcements:

The Protocol Panel might meet before the next meeting via conference line, or other source of communication. Protocol panel output will be reviewed at the next meeting.

Bruce Bartley forwarded the request of WWEMA to sit on the Steering Committee. Th e Steering Committee agreed that at this time, WWEMA will not be represented on th e committee. Ken Scmidt agreed to discuss having IWCI represent WWEMA members on the Steering Committee.

If you know of people in industry, or academia who are technical experts in protocol topics 2 or 3, please contact Bruce Bartley with their names and phone numbers.

Next Steering Committee Meeting will be on July 23, 1996 at NSF *International,* Ann Arbor, Michigan. The Protocol Panel (#1) in Microbiological Removal/Destruction will also meet on July 22, 1996.